

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A method for removing nitrate from nitrate-contaminated water comprising treating said water in a hydrogen-fed bioreactor with autotrophic, hydrogen-oxidizing denitrifying bacteria.

2. (Original) The method according to claim 1 wherein the bacteria are purple, non-sulfur phototrophic bacteria.

3. (Previously presented) The method according to claim 11 wherein the hydrogen is produced by electrolysis of water.

4. (Original) The method according to claim 1 wherein the bacteria have been isolated from nitrate-containing groundwater.

Claims 5-8 (Canceled).

9. (Previously Presented) The method according to claim 1 wherein the bacteria use nitrate as a respiratory

terminal electron acceptor whereby nitrate is converted to nitrogen gas.

10. (Previously presented) The method according to claim 1 wherein the bacteria belong to the *Proteobacteria* of the domain Bacteria.

11. (Previously Presented) The method according to claim 1 comprising generating hydrogen gas by a method selected from the group consisting of corrosive oxidation of iron, biological fermentation, or electrolysis.

12. (Previously presented) The method according to claim 1 wherein the bacteria are supported on a solid surface to support biofilm formation by the bacteria.

13. (Previously presented) The method according to claim 12 wherein after the water has been treated by the bacteria on a solid support, the water is percolated through a sand filtration unit.

14. (Previously Presented) The method according to claim 1 wherein the nitrate-contaminated water is drinking water.

15. (New) The method according to claim 1 wherein the bacteria do not require nitrate to function.